Amendments to the Claims

Please amend the claims to read as follows:

1. (previously presented) A system for processing at least one signal representative of an event detected by at least one detector in a flow cytometer, the system comprising:

a detector, adapted to detect light emitted from said event in said flow cytometer and to generate a signal representative of said emitted light;

a sampling device, adapted to receive portions of said signal from said detector in time sequence and to generate a respective value representative of the respective magnitude of each respective portion of said signal as said respective portion of said signal is being received; and

an arithmetic device, adapted to arithmetically combine a designated value with each of said values.

2. (original) A system as claimed in claim 1, wherein:

said sampling device receives a number of said portions totaling substantially all of said signal, and generates said values which represent said portions of substantially all of said signal.

3. (original) A system as claimed in claim 1, wherein:

said signal is an analog signal representative of a light signal emitted from said event as detected by said detector.

4. (canceled)

5. (previously presented) A system as claimed in claim 1, wherein:

said arithmetic device includes a subtractor which is adapted to subtract said designated value from each of said values.

6. (previously presented) A system as claimed in claim 1, wherein:

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said designated value is representative of an undesired signal detected by said detector.

7. (previously presented) A system as claimed in claim 1, wherein:
said designated value is representative of a characteristic of said detector.

8. (canceled)

9. (canceled)

10. (canceled)

11. (withdrawn) A system for identifying a configuration of a detector unit of a flow cytometer, the system comprising:
a port, adapted to couple to a removable device, said removable device including an optical element and a memory adapted to store information pertaining to said optical element; and
a reader, adapted to read said information stored in said memory when said removable device is coupled to said port.

12. (withdrawn) A system as claimed in claim 11, wherein:
said optical element includes an optical filter.

13. (withdrawn) A system as claimed in claim 11, wherein:
said optical element includes a mirror.

14. (withdrawn) A system as claimed in claim 11, further comprising:
an indicator, adapted to provide an indication of said information read by said reader.

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15. (withdrawn) A removable device, adapted for coupling with a port of a flow cytometer, the removable device comprising:

an optical element; and

a memory adapted to store information pertaining to said optical element.

16. (withdrawn) A removable device as claimed in claim 15, wherein:

said optical element includes an optical filter.

17. (withdrawn) A removable device as claimed in claim 15, wherein:

said optical element includes a mirror.

18. (previously presented) A method for processing at least one signal representative of an event detected by at least one detector in a flow cytometer, the method comprising:

generating a signal representative of light emitted from said event in said flow cytometer using a detector;

receiving portions of said signal from said detector in time sequence;

generating a respective value representative of the respective magnitude of each respective portion of said signal as said respective portion of said signal is being received; and

arithmetically combining a designated value with each of said values.

19. (previously presented) A method as claimed in claim 18, wherein:

said receiving receives a number of said portions totaling substantially all of said signal.

20. (original) A method as claimed in claim 18, wherein:

said signal is an analog signal representative of a light signal emitted from said event as detected by said detector.

21. (canceled).

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22. (previously presented) A method as claimed in claim 18, wherein:

said arithmetic combining includes subtracting said designated value from each of said values.

23. (previously presented) A method as claimed in claim 18, wherein:

said designated value is representative of an undesired signal detected by said detector.

24. (previously presented) A method as claimed in claim 18, wherein:

said designated value is representative of a characteristic of said detector.

25. (canceled)

26. (canceled)

27. (canceled)

28. (withdrawn) A method for identifying a configuration of a detector unit of a flow cytometer, comprising:

coupling a removable device to a port of said flow cytometer, said removable device including an optical element and a memory adapted to store information pertaining to said optical element; and

reading said information stored in said memory when said removable device is coupled to said port.

29. (withdrawn) A method as claimed in claim 28, wherein:

said optical element includes an optical filter.

30. (withdrawn) A method as claimed in claim 28, wherein:

said optical element includes a mirror.

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31. (withdrawn) A method as claimed in claim 28, further comprising:

providing an indication of said information read from said memory.

32. (withdrawn) A method for manufacturing a removable device, adapted for coupling with a port of a flow cytometer, the method comprising:

coupling an optical element to said removable device; and

including a memory in said removable device, said memory being adapted to store information pertaining to said optical element.

33. (withdrawn) A method as claimed in claim 32, wherein:

said optical element includes an optical filter.

34. (withdrawn) A method as claimed in claim 32, wherein:

said optical element includes a mirror.

35. (amended) A system for processing at least two signals representative of an event detected by at least two detectors in a flow cytometer, the system comprising:

a first detector and a second detector, each adapted to detect light emitted from said event in said flow cytometer and to generate a first signal and a second signal representative of said emitted light, respectively;

a sampling device, adapted to receive portions of a said first signal from said first detector in time sequence and to generate a respective value representative of the respective magnitude of each respective portion of said first signal as said respective portion of said first signal is being received, and to receive portions of a said second signal from said second detector in time sequence and to generate a respective value representative of the respective magnitude of each respective portion of said second signal as said respective portion of said second signal is being received, wherein said sampling device receives said portions of said first signal at a time different from that during which said sampling device receives at least some of said portions of said second signal; and

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a storage device, adapted to receive said values generated by said sampling device and to impose a delay on said values from at least one of said first and second signals.

36. (previously presented) A system as claimed in claim 35, wherein:

said storage device time correlates said values generated from said first signal with said values generated from said second signal.

37. (previously presented) A system as claimed in claim 35, wherein:

said delay corresponds to a distance between interrogation points of said respective first and second detectors.

38. (previously presented) A system as claimed in claim 35, wherein:

said sampling device receives a number of said portions totaling substantially all of said signals, and generates said values which represent said portions of substantially all of said signals.

39. (previously presented) A system as claimed in claim 35, wherein:

each of said signals is an analog signal representative of a light signal emitted from said event as detected by said detector.

40. (previously presented) A system as claimed in claim 35, further comprising:

an arithmetic device, adapted to arithmetically combine a designated value with each of said values generated from at least one of said signals.

41. (previously presented) A system as claimed in claim 40, wherein:

said arithmetic device includes a subtractor which is adapted to subtract said designated value from each of said values.

42. (previously presented) A system as claimed in claim 40, wherein:

said designated value is representative of an undesired signal detected by said detector.

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43. (previously presented) A system as claimed in claim 40, wherein:

said designated value is representative of a characteristic of said detector.

44. (previously presented) A system as claimed in claim 35, further comprising:

a comparator, adapted to compare each of said values generated from said first signal with a respective one of said values generated from said second signal.

45. (previously presented) A method for processing at least two signals representative of an event detected by at least two detectors in a flow cytometer, the method comprising:

generating a first signal and a second signal representative of light emitted from said event in said flow cytometer detected using a first detector and a second detector, respectively;

receiving portions of said first signal and said second signal in time sequence, wherein said portions of said first signal are received at a time different from that during which at least some of said portions of said second signal are received;

generating a respective value representative of the respective magnitude of each respective portion of said first signal as said respective portion of said first signal is being received;

generating a respective value representative of the respective magnitude of each respective portion of said second signal as said respective portion of said second signal is being received;

storing said values generated from said first and second signals and imposing a delay on said values from at least one of said first and second signals.

46. (previously presented) A method as claimed in claim 45, further comprising the step of time correlating said values generated from said first signal with said values generated from said second signal.

47. (previously presented) A method as claimed in claim 45, wherein:

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said delay corresponds to a distance between interrogation points of said respective first and second detectors.

48. (previously presented) A method as claimed in claim 45, wherein said receiving receives a number of said portions totaling substantially all of said signal.

49. (previously presented) A method as claimed in claim 45, wherein:
each said signal is an analog signal representative of a light signal emitted from said event as detected by one of said detectors.

50. (previously presented) A method as claimed in claim 45, further comprising:
arithmetically combining a designated value with each of said values.

51. (previously presented) A method as claimed in claim 50, wherein:
said arithmetic combining includes subtracting said designated value from each of said values.

52. (previously presented) A method as claimed in claim 50, wherein said designated value is representative of an undesired signal detected by said detector.

53. (previously presented) A method as claimed in claim 45, further comprising:
comparing each of said values generated from said first signal with a respective one of said values generated from said second signal.

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